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Addressing the Protection Gap: Climate Related Catastrophic Risks

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Insurance Supervisors Can Help Address Protection Gap

- ▶ Engage with insurance industry
- ▶ Encourage new product development by insurers
- ▶ Identify regulatory barriers to new/expanded products
- ▶ Work to reduce inappropriate barriers
 - Regulation
 - Legislation
- ▶ Timely approval of new products/rates
- ▶ Regulatory “Sandboxes”
- ▶ CA Example: RideSharing (Uber etc) Insurance

However.....

Limits on Supervisor's Authority

- ▶ Can't change or ignore underlying risk
- ▶ Supervisors Usually Can't Order Insurers to Offer Insurance for risks that insurers decline to write
- ▶ Financial Supervisory Role Requires Adequate Rates
- ▶ Financial Supervisory Role Requires Adequate Reserves
- ▶ Market Conduct Responsibility to make sure product performs as promised, transparency in policy terms, appropriate claims handling, etc
- ▶ National and state laws govern Supervisors
- ▶ Accreditation Standards govern supervisors

Climate Related Catastrophic Risks Facing United States

- ▶ Wildfires
- ▶ Flooding (coastal and river)
- ▶ Wind/Hurricane

California Wildfires



- October 2017 Wildfires (e.g., Tubbs Fire in Napa, Atlas Fire in Napa and Solano & Redwood Valley Complex in Mendocino)
- December 2017 Wildfires (e.g., Thomas Fire in Ventura and Santa Barbara, Lilac Fire in San Diego & Creek Fire in Los Angeles)
- January 2018 Mudslides from Fires (e.g., Montecito)
- 2018 Wildfires (e.g., Mendocino Complex, Carr Fire, Campfire)

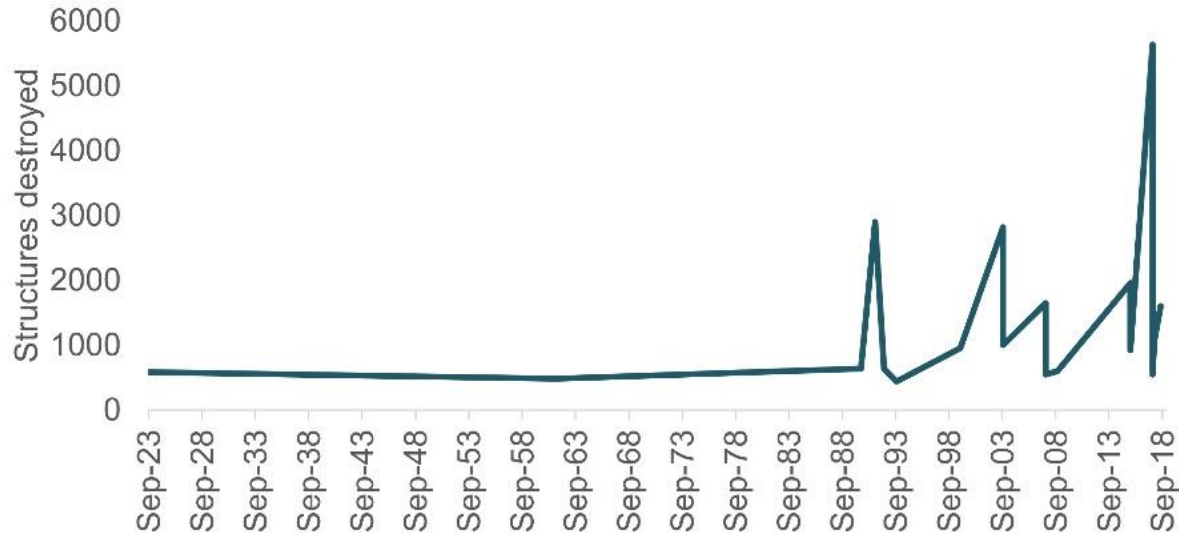
Losses from 2017 Wildfires and Montecito Mudslide



Losses from 2018 Wildfires

- ▶ 86 lives lost in CampFire 2018
- ▶ 14,400 homes and 25,000 total structures destroyed
- ▶ \$13 Billion in insured losses for 2018 fires
- ▶ Small insurance company became insolvent due to fire claims
- ▶ Pacific Gas and Electric utility filing for Ch. 11 bankruptcy reorganization due to potential \$30 Billion liability from equipment causing fires

They're More Destructive



A Mosaic of Climate-related Factors Preceded and Followed the Wildfires Adding to Their Intensity

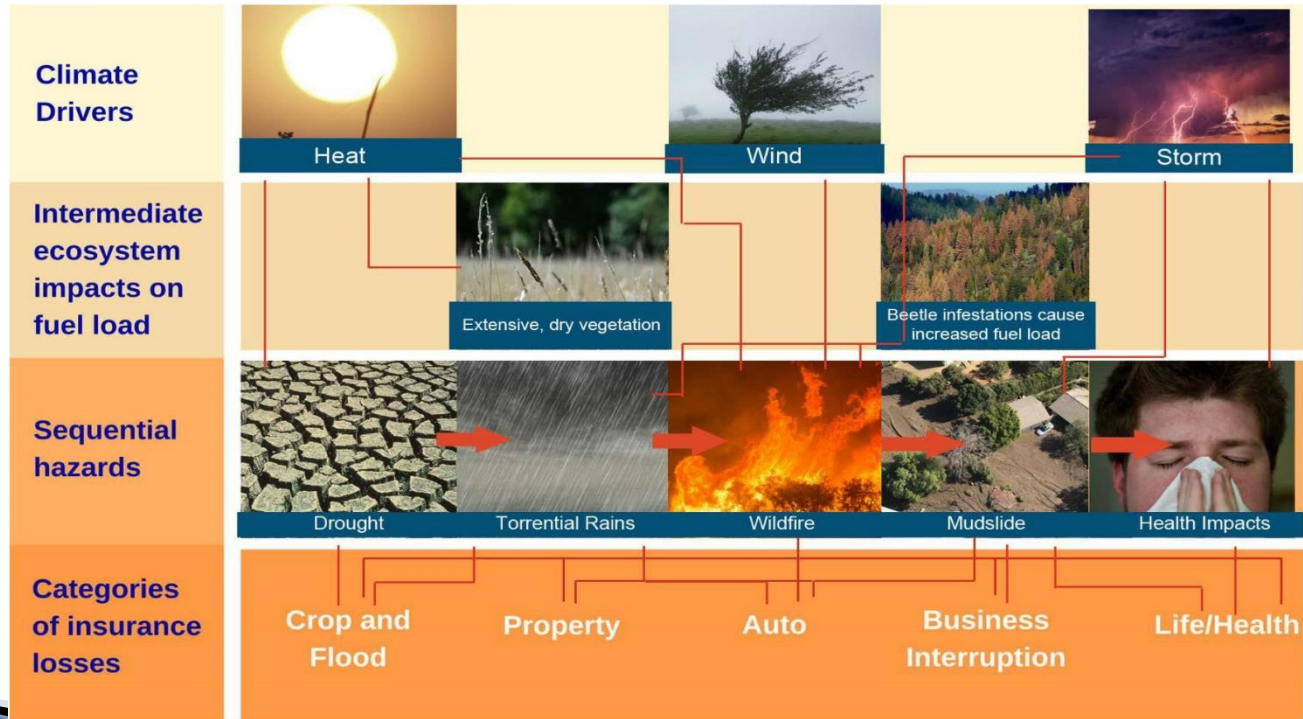


Photo credits: Flickr (William Brawle, California National Guard, Mary Cernicek, Jenny Downing, Everglades NPS, Kari Greer), Unsplash (Mahkeo), Air National Guard (Sgt. Cristian Meyers), USGS (N. Stephenson), iStock.

Availability/Affordability

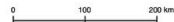
- 15% increase from 2015 and 2016 in insurer non-renewals of home insurance in wildland-urban interface (WUI) areas.
- 1 Million WUI homes rated high or very high risk-of-fire.
- Home insurance costs 40% more on average for homes in WUI
- Insurers use fire risk models to assign risk score to homes and declining to write or renew insurance for some homes.
- Growing problem of insurance protection gap for homes in WUI

Wildland-Urban Interface

California Pacific Southwest Region



- Wildland-Urban Interface (WUI)**
- Interface
 - Intermix
- Non-WUI Vegetated**
- No housing
 - Very low housing density
- Non-vegetated or Agriculture**
- Low and very low housing density
 - Medium and high housing density
 - Water
 - County border
 - Highway



For more information on the maps and data presented here, please refer to page 20.

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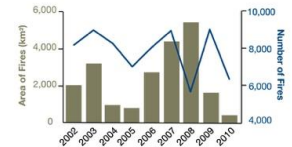
Population and Geography Overview

Census Data	Number	%
Population	37,253,956	
Housing units	13,680,081	
Seasonal use	302,815	2

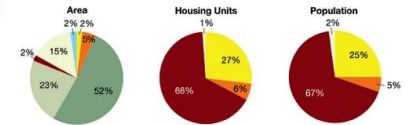
Land Ownership	Area (km ²)	%
Public-Federal	198,970	48
Public-State	10,147	2
Public-Local	5,803	1
Private	195,902	48

Land Cover	Area (km ²)	%
Forest	96,349	23
Shrubland/herbaceous	216,461	53
Planted/cultivated	40,782	10
Developed	27,325	7
Water/wetland	9,580	2
Others	20,324	5
Total area	410,821	

Wildfire History



WUI in Numbers (see legend)



CA Answer to Wildfire Protection Gap: FAIR Plan

- The Fair Access to Insurance Requirements (“FAIR”) Plan established by CA Legislature: fire insurance for homes that cannot otherwise obtain insurance (last resort).
- Non-Profit consortium of home insurers.
- Rates based on risk. Required to meet traditional reserve requirements. Regulated by Department of Insurance
- Not subsidized by taxpayers. Not Government Agency.
- Only 38,000 FAIR policies in WUI, but between 2014 and 2017, FAIR Plan policies increased by 36% in WUI.

Insurance Supervisor's Legislative Proposals

- If homeowner meets high fire defensibility standard, then insurer has to write insurance.
- A mitigation premium credit for communities and homeowners that make property more defensible.
- An appeals process for homeowners to appeal non-renewals.
- Fire Risk Models should be filed and approved by regulator.
- Annual filing of fire loss data.



Wildfire Risk Reduction Efforts

- ▶ California state budget: \$250 Million USD annually for 5 years to thin forests
- ▶ More firefighters and fire trucks/planes
- ▶ Increased building code standards to improve home resilience
- ▶ Require electric utilities to “harden” transmission lines/prevent fires

Flood Protection Gap :National Flood Insurance Program (NFIP)

- ▶ Private insurers stopped writing flood insurance because risk too high
- ▶ US Govt establishes flood insurance for homes (NFIP)
- ▶ \$250,000 USD coverage limit
- ▶ Not priced based on risk.
- ▶ Inadequate reserves. Taxpayer subsidy.
- ▶ Homes required to have NFIP flood insurance if less than 1-100 year flood protection & mortgage federally guaranteed
- ▶ Does not discourage rebuilding in flooded areas
- ▶ Has supplanted almost all of private flood insurance market

Florida Answer to Hurricane Insurance Protection Gap: Florida Citizens Insurance Corporation (FLIC)

- ▶ After devastating Hurricane Andrew (1992), insurers stop writing hurricane coverage
- ▶ Florida Legislature establishes:
 - Scientific Commission to model hurricane cat risk
 - Catastrophic Reinsurance Fund
 - Home insurance direct writer (FLIC) of last resort
 - Building code upgrades for new homes/retrofit existing
- ▶ Cat Fund & FLIC assessment on home insurance policies if their reserves exhausted
- ▶ Has not supplanted private home insurance market

Investments in Risk Reduction Example: Coral Reefs & Mangrove Forests Reduce Flood Risks

- ▶ Healthy Coral Reefs reduce wave energy 97%
- ▶ Coastal Mangrove forests reduce wave height
- ▶ USGS/The Nature Conservancy 2019 Study
 - US Coral Reefs Reduce Flood Damage Losses \$1.8 Billion USD annually
 - Protect 18,000 people annually from flooding
- ▶ Coral Reef Insurance Project, Cancun, Mexico: Swiss Re & The Nature Conservancy
- ▶ Mangrove and Coral Reef Restoration Projects

Conclusion

- ▶ Supervisors can play role in addressing protection gap
- ▶ Insurers can bring expertise and capacity to help address protection gap
- ▶ Government may have to establish insurance program to fill protection gap if risks too high for private sector
 - Price based on actual risk.
 - Premium subsidy for those who cannot afford
 - Modeling, Reinsurance Fund, Last Resort (don't supplant private market)
- ▶ Risk reduction & resilience measures critically important

- ▶ Thank You!
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